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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,503	02/07/2006	Enea Garagnani	MI 6125 (US)	8964
34872	7590	11/02/2006	EXAMINER	
BASELL USA INC. INTELLECTUAL PROPERTY 912 APPLETON ROAD ELKTON, MD 21921			CHOI, LING SIU	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/567,503	<b>Applicant(s)</b> GARAGNANI ET AL.	
	<b>Examiner</b> Ling-Siu Choi	<b>Art Unit</b> 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                                  |                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                      | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                             | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/12/2006</u> | 6) <input type="checkbox"/> Other: _____                                                |

### **DETAILED ACTION**

1. This Office Action is in response to the Preliminary Amendment filed February 7, 2006. Claims 1-7 was canceled and Claims 8-14 have been added. Claims 8-14 are now pending, wherein Claims 8-11 are drawn to a polyolefin composition; Claim 12 is drawn to a process to prepare the polyolefin composition; Claims 13-14 are drawn to articles. And Claim 8 is an independent one.

#### ***Claim Objections***

2. Claim 12 is objected to because of the following informalities: Claim 12, line 6, "polymer ~~ad~~ the partially" suggested to be changed to --polymer and the partially--.  
Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

**The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.**

4. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claim 9, line 2-3, "0.5 to 3 parts by weight of mineral fillers" causes indefiniteness because there is no base to cite such amount.

### ***Claim Analysis***

5. Summary of Claim 8:

A polyolefin composition comprising		
A	60-85 wt%	a broad molecular weight distribution propylene polymer having a polydispersity index = 5-15 a melt flow rate =20-78 g/10 min [ASTM-D 1238, condition L]
B	15-40 wt%	a partially xylene soluble olefin polymer rubber comprising at least 65 wt% of ethylene

Summary of Claim 12:

A process to prepare the polyolefin composition of Claim 8,
wherein the monomers are polymerized in the presence of stereospecific catalyst supported on active magnesium halide in active form in at least three sequential steps
wherein components A and B are prepared in <u>separate subsequent steps</u> , operating in each step in the presence of the polymer formed and the catalyst used in the immediately preceding step

### ***Claim Rejections - 35 USC § 102***

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6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 8-11 and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by DeNicola, Jr. et al. (US 5,286,791).

DeNicola, Jr. et al. disclose an impact-modified graft copolymer composition to be used in an inject molding to make an article, comprising (A) 10-90 wt% of graft copolymer, (B) 90-10 wt% of at least one propylene polymer having a wide molecular weight distribution, and (C) 2-40 wt% of at least one rubber component, wherein the component B has a molecular weight distribution of 8-60 and a melt flow rate of 0.5-50 g/10 min; the component C can be an ethylene-propylene copolymer rubber having 30-70% ethylene content (abstract; col. 4, lines 25-31; col. 7, lines 33, 46-48, and 62-63; Examples 1-5-especially line 9; claims 1 and 4). DeNicola, Jr. also disclose that the composition further comprises about 10-100 pph of a filler which can be talc, a calcium carbonate, and silicate (col. 3, lines 25-32; col. 10, lines 36-43). It is noted that the ethylene-propylene copolymer rubber reads on the partially xylene soluble olefin polymer rubber.

***Claim Rejections - 35 USC § 103***

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeNicola, Jr. et al. (US 5,286,791).

DeNicola, Jr. et al. disclose a process to prepare a broad-molecular-weight-distribution polypropylene by a sequential polymerization in at least two stages in the presence of a Ziegler-Natta catalyst comprising a titanium compound supported on a magnesium halide in active form, an Al-alkyl compound, and an external electron-donor compound, the polymerization operating in separate and consecutive stages with each stage having the presence of the polymer and the catalyst coming from the preceding stage (col. 4, lines 38-43; col. 6, lines 66-68; col. 7, lines 1-3).

The difference between the present claim and the disclosure of DeNicola, Jr. is the requirement of the broad molecular weight distribution propylene polymer and the partially xylene soluble olefin polymer rubber being prepared in separate subsequent steps.

It is noted that the polymerization of polymer in at least two separate and consecutive stages results in a broad molecular weight distribution polymer. It is obvious to have both polypropylene and the ethylene-propylene copolymer rubber being carried out in the separate subsequent steps to obtain the composition with the

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expected success because DeNicola Jr. do teach such process.

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over DeNicola, Jr. et al. (US 5,286,791) in view of Herman (US 5,174,384).

DeNicola, Jr. et al. disclose an article obtained by inject molding of an impact-modified graft copolymer composition comprising (A) 10-90 wt% of graft copolymer, (B) 90-10 wt% of at least one propylene polymer having a molecular weight distribution of 8-60 and a melt flow rate of 0.5-50 g/10 min, and (C) 2-40 wt% of at least one ethylene-propylene copolymer rubber having 30-70% ethylene content, which reads on the partially xylene soluble olefin polymer rubber (abstract; col. 4, lines 25-31; col. 7, lines 33, 46-48, and 62-63; Examples 1-5-especially line 9; claims 1 and 4).

The difference between the present claim and the disclosure of DeNicola, Jr. et al. is the requirement of the article to be a bumper which comprises the impact-modified graft copolymer composition in the present claim.

Herman discloses a pumper comprising a synthetic, ozone resistant, non-acid forming, extruded rubber lining (col. 9, lines 56-61). DeNicola, Jr. et al. disclose that the composition has improved impact/stiffness balance without a substantial loss in modulus (col. 2, lines 66-68; col. 3, lines 1-8). In light of such benefit, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the composition disclosed by DeNicola, Jr. et al. in the bumper and thereby obtain the present invention.

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**Conclusion**

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Huff (US 4,221,882).

Huff discloses a blend comprising polypropylene, at least about 30% polyethylene, and from about 4 to about 11% ethylene-propylene copolymer rubber, wherein the polypropylene has a melt flow rate of from about 0.3 to about 35 g/10 min at 230°C and 2,160 g load (abstract; col. 5, lines 31-35; claim 1). And Huff is silent on the molecular weight distribution of the polypropylene. Accordingly, Huff does not teach or fairly suggest the claimed composition.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.



LING-SUI CHOI  
PRIMARY EXAMINER

October 25, 2006